

SKA 2005 — Scientific Program

Version 10: 9 September 2005

Sunday 30 October 2005	
1900-2200	Registration and reception — Pool Side
Monday 31 October	
0830	Opening remarks — Prof S. Bhattacharya, Director, TIFR, Mumbai
Session 1: Reports from the International SKA Project Office	
0840	Overview of activities — Richard Schilizzi (Project Director)
0900	Engineering Working Group — Peter Hall (Project Engineer)
0920	Science Working Group — Steve Rawlings (chair)
0940	Site Evaluation Working Group — Yervant Terzian (chair)
1000	Simulation Working Group — Steven Tingay (chair)
1020	Operations Working Group — Ron Ekers (vice-chair)
1030	Outreach Committee — Michael Kramer (chair)
1040	Tea/Coffee
Session 2: Programmatic Reports	
1110	The Australian SKA Program and the Decadal Plan — Brian Boyle (CSIRO-ATNF)
1120	The SKA and the Canadian Long-Range Plan for Astronomy — Russ Taylor (Calgary)
1130	Ongoing new radio telescopes in China — Bo Peng (NAO)
1140	European Sixth Framework Programme — Peter Wilkinson (Jodrell Bank)
1150	India — Pramesh Rao (NCRA/TIFR)
1200	South Africa — Justin Jonas (HartRAO)
1210	US Technology Development Plan — Jim Cordes (Cornell)
1220	Lunch
1220	Meeting of the Outreach Committee (review of Pune activities, long-term outreach, IAU GA 2006 activities, SKA animation, budget)
Session 3: Summaries of Key Science Workshops held in 2005	
1400	Probing the Dark Ages: HI and the Epoch of Reionization Signal — Ger de Bruyn (ASTRON), Chris Carilli (NRAO)
1430	The Evolution of Galaxies and Large-scale Structure — Steve Rawlings (Oxford)
1500	Tea/Coffee
1530	The Origin and Evolution of Cosmic Magnetism — Bryan Gaensler (Harvard)
1600	Strong Field Tests of General Relativity Using Pulsars and Black Holes — Michael Kramer (Jodrell Bank)
1630	The Cradle of Life: Protoplanetary Disks — Joe Lazio (NRL)
1700	Break
1730	Shuttles to Chandrashekar Auditorium (IUCAA) and NCRA, in the Pune University Campus
1830	Evening lecture: “The Dark Side of the Universe” by Joseph Silk, Oxford University — At Chandrasekhar Auditorium, Pune University Campus

Tuesday 1 November

Session 4: SKA Demonstrators and Pathfinders

0830	The Allen Telescope Array — David DeBoer (SETI Institute)
0900	The Deep-Space Network – Durga Bagri (JPL)
0915	Pre-loaded Dishes — Udaya Shankar (NCRA/TIFR)
0930	LOFAR – Harvey Butcher (ASTRON)
1000	Phased Arrays – Parbhu Patel (ASTRON)
1015	KARST/FAST – Bo Peng (NAOC)
1030	Tea/coffee
1100	Concentrators + focal plane arrays: Australian Overview – Anne Green (U-Sydney)
1115	Concentrators + focal plane arrays: Engineering Challenges in the xNTD — John O’Sullivan (CSIRO-ATNF)
1130	Small dishes + focal plane arrays: Karoo Array Telescope — Justin Jonas (HartRAO)
1145	Large Adaptive Reflector — Peter Dewdney (NRC/HIA/DRAO)
1200	The Mileura Widefield Array – Colin Lonsdale (MIT)
1215	EWG comments on demonstrator progress — Peter Hall (ISPO)
1230	Key Science Requirements Matrix key science issues – Carole Jackson (ATNF) key engineering issues – Peter Hall
1300	Lunch

Session 5: Parallel discussions[†] 1400-1730

EWG Task Forces	Regal Hall (Engineering abstracts (3 minutes per poster), joint task force meeting, and task force working meetings to prepare sub-system and industry whitepapers)
SWG Task Force	Xstacy Hall (Key Science Requirements Matrix, science constraints on site choice, new science issues, key science project priorities, survey requirements)
SEWG Task Force	Crystal Hall (preparation for evaluation of site proposals)
SimWG Task Force	Senate Hall (Review of the configuration simulations process for site proposals; discussion of figures-of-merit for configurations; presentation of a method for evaluating proposed configurations; discussion of configuration evaluation and what the ISPO require from the Configuration Simulation Task Force)

[†] Some are “Closed Sessions” and participation to these is by invitation”. Such sessions will be indicated at the Entrance.

Wednesday 2 November

Session 6: Parallel discussions (*continued*)

0830-1230

EWG Task Force

Regal Hall

(Preparation of sub-system and industry white papers, continued)

SWG Task Force

Xstacy Hall

Key Science Requirements Matrix, science constraints on site choice, new science issues, key science project priorities, survey requirements, continued)

SEWG Task Force

Crystal Hall

(Preparation for evaluation of site proposals)

1030-1230

Joint meeting of SWG and SimWG to discuss simulations in Senate Hall

1100-1230

EWG committee meeting

1230

Lunch

Session 7: Plenary session on the Key Science Requirements Matrix and new science issues (Chairs: Steve Rawlings, Peter Hall)

1400-1515

Short presentations on new science issues (5 min talks unless otherwise noted)

- Case for multiple independent fields-of-view (FOVs)
- Case for high angular resolution below a few GHz
- Case for SKA operation between 200 and 500 MHz
- Impact of limited FOV at high angular resolution (due to data transmission limits)
- The need for all-sky transient detectors and buffers
- The need for a high filling factor at high frequencies
- The impact of constrained sky access for non-survey applications
- Science capability of Phase 1 (10%) and Phase 2 (50%) SKA as a function of FOV (15 mins)

1515-1530

Tea/Coffee

1530-1600

Presentations on system design impact of key science requirements matrix and new science issues

1600-1515

Open discussion

1715

Summary of SKA 2005 – Richard Schilizzi

1730

Closing remarks — Phil Diamond

19:30-22:30

ISSC Executive Committee Meeting

Thursday 3 November	
0730-1400	Visit to GMRT including a session on GMRT Science
0730	Departure from Hotel
0930	Arrival at GMRT
0930-1000	Tea
1000-1030	Visit to Antenna
1030-1130	Visit to Labs.
1130-1200	“Recent results from the GMRT” — J.N. Chengalur, NCRA
1210-1250	“The GMRT: Current Status and Future Plans” — Y. Gupta, NCRA
1300-1400	Lunch
1400	Departure for Pune
1600	Arrival at Pune Hotels
1645	Departure to Hotel Blue Diamond
1730-1930	Industry Interaction session at Hotel Blue Diamond
2000	Dinner at Hotel Blue Diamond, hosted by TCE
2200	Departure for Hotels
Friday 4 November	
0830-1730	ISSC meeting in Crystal Hall
Saturday 5 November	
0830-1700	ISSC Meeting in Crystal Hall

Scientific Organising Committee

- Peter Hall
- Michael Kramer
- Pramesh Rao (LOC chair)
- Steve Rawlings
- Richard Schilizzi (SOC chair)
- Yervant Terzian
- Steven Tingay
- Peter Wilkinson